

ABSTRACT OF THE DISCLOSURE

In a vapor-compression refrigerant cycle having an ejector, a mixture refrigerant of a first refrigerant and a second refrigerant is used. When the mixture refrigerant is decompressed and expanded in a nozzle of the ejector, the first refrigerant has an adiabatic heat drop that is larger than that of the second refrigerant. Further, the second refrigerant has an evaporation latent heat that is larger than that of the first refrigerant. In a gas-liquid separator, a gas-phase amount of the first refrigerant is made larger than that of the second refrigerant, and a liquid-phase amount of the second refrigerant is made larger than that of the first refrigerant. For example, the first refrigerant is propane, and the second refrigerant is butane. Accordingly, expansion energy recovered in the nozzle can be effectively converted to pressure energy in a pressure increasing portion of the ejector while cooling capacity of an evaporator can be improved.